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For: LOADING SYSTEM FOR SECURING CARGO IN THE BED
OF A VEHICLE

- 1 1. A loading system for securing cargo, the system comprising:
 - 2 at least two spaced forwardly located pin and receptacle assemblies each including:
 - 4 a pin biased outward with respect to a housing fixed to one of the cargo and a vehicle, and
 - 5 a receptacle on the other of the cargo and the vehicle for receiving the pin to pre-load the cargo and to secure the cargo in vertical and transverse directions; and
 - 6 at least two spaced rearwardly located tensioning systems each including:
 - 7 a member securable to one of the cargo and the vehicle,
 - 8 a pivoting clamp handle secured to the other of the cargo and the vehicle for tensioning the member, and
 - 9 a member guide which orients the member at an angle with respect to the vertical direction to secure the cargo in both the horizontal and vertical directions.
- 1 2. The system of claim 1 further including low friction strips running in the horizontal direction between the bed and the cargo assisting in deployment and stowage of the cargo.

1 3. The system of claim 2 in which selected strips include a ridge for securing
2 the cargo in the transverse direction.

1 4. The system of claim 1 in which the cargo is a foldable command table
2 including an aft section, a forward section, and an intermediate section hinged to the
3 forward section and the aft section, and at least one bracket upstanding from the proximal
4 end of the forward section supporting the distal end of the aft section when the aft section
5 is folded up and over the forward section.

1 5. The system of claim 4 in which the pin and receptacle assemblies are
2 located at the proximal end of the forward section and the clamping systems are located
3 on the intermediate section.

1 6. The system of claim 1 in which the pin includes a tapered tip.

1 7. The system of claim 1 in which a plurality of washers are disposed about
2 the pin and received in the housing for biasing the pin.

1 8. The system of claim 1 in which the receptacle is in the form of a block on
2 the cargo with a cavity therein for receiving the pin.

1 9. The system of claim 1 further including a clamp plate with an ear to which
2 the handle is pivotably connected.

1 10. The system of claim 9 further including a strap guide is fixed to the clamp
2 plate.

1 11. The system of claim 9 further including a tensioner pivotably connected to
2 the handle.

1 12. The system of claim 9 in which the clamp plate is secured to the cargo.

1 13. A loading system for securing a folding command table in the bed of a
2 vehicle, the folding command table including an aft section, a forward section, an
3 intermediate section hinged to the forward section and the aft section, and at least one
4 bracket upstanding from the proximal end of the forward section supporting the distal end
5 of the aft section when the aft section is folded up and over the forward section, the
6 loading system comprising:

7 at least two spaced forwardly located pin and receptacle assemblies each
8 including:

9 a receptacle on the table located proximate the intersection of the
10 bracket and the forward section of the table, and
11 a pin biased outward with respect to a housing fixed to the forward
12 section of the vehicle bed, the pin received in the receptacle to
13 secure the table in the vertical and transverse directions; and

14 at least two spaced rearwardly located clamping systems each including:

15 a clamp plate secured to the intermediate section of the table,
16 a clamp handle pivotable with respect to the clamp plate,
17 a strap tensioner pivotably connected to the handle,
18 a strap extending between the strap tensioner and the vehicle, and
19 a strap guide fixed to the clamp plate below the clamp handle to
20 orient the strap to secure the cargo in both the vertical and
21 horizontal directions.

1 14. The system of claim 13 further including low friction strips running in the

2 horizontal direction between the bed and the cargo assisting in deployment and storage of
3 the cargo.

1 15. The system of claim 14 in which selected strips include a ridge for
2 securing the cargo in the transverse direction.

1 16. The system of claim 13 in which the pin includes a tapered tip.

1 17. The system of claim 13 in which a plurality of washers are disposed about
2 the pin and received in the housing for biasing the pin.

1 18. The system of claim 13 in which the receptacle is in the form of a block
2 with a cavity therein for receiving the pin.

1 19. The system of claim 14 in which the clamp plate includes an ear to which
2 the handle is pivotably connected.

1 20. A loading system comprising:
2 at least one pin and receptacle assembly including a pin biased outwardly
3 with respect to a housing and a receptacle for receiving the pin to pre-load cargo and
4 secure the cargo in the vertical and transverse directions; and
5 at least one tensioning system for securing the cargo in both the horizontal
6 and vertical directions.

1 21. The loading system of claim 20 in which the tensioning system includes:
2 a strap,
3 a pivoting clamp handle for tensioning the strap, and
4 a strap guide which orients the strap at an angle to secure the cargo in both
5 the horizontal and vertical directions.

1 22. A loading system comprising:
2 a first assembly configured to pre-load cargo in the horizontal direction
3 and to secure the cargo in the vertical and transverse directions; and
4 a tensioning assembly including a strap, a pivoting clamp handle for
5 tensioning the strap, and a strap guide which orients the strap at an angle to secure the
6 cargo in both the vertical and horizontal connections.

1 23. The loading system of claim 22 in which the first assembly includes a
2 deflectable pin and receptacle assembly.

1 24. A loading system comprising:
2 first means for securing cargo in the vertical and transverse directions and
3 for pre-loading the cargo in the horizontal direction; and
4 second means for securing the cargo in both the horizontal and vertical
5 directions.

1 25. The loading system of claim 24 in which the first means is a forwardly
2 located deflectable pin and receptacle assembly.

1 26. The loading system of claim 24 in which the second means is a rearwardly
2 located tensioning system.